Tomer Chen

Bioinformatician

052-808-82-08 TomerLiveChenWork@gmail.com www.linkedin.com/in/Tomer-Live-Chen
Portfolio-6hxd.onrender.com github.com/Tomerlivechen

Professional Summary

Bioinformatician with expertise in RNA therapeutics, genetic engineering, and computational biology. Skilled in automation, bioinformatics pipelines, and data analysis, reducing outsourcing costs and improving efficiency. Developed Python-based RNA analysis tools and automation frameworks, cutting analysis time by 80%. Proficient in CRISPR, NGS, statistical modeling, and full-stack development, bridging biotechnology and software engineering to drive innovation.

Skills

Biotechnology: PCR, WB, Transfection, Transformation, cloning, RNA design, Mars-Seq, RNA-Seq NGS data analysis, DNA/RNA/ Protein extraction, CRISPR & Gene Editing, Statistical Modelling, JMP.
Programming: Python, C#, JavaScript, TypeScript, RESTful API Development, WPF, SQL, NoSQL (MongoDB).
Tools: Git, VS-Code, Visual Studio, Spyder, Azure
Soft Skills: Fast learner, Multitasking, Technical Writing & Documentation, Problem-Solving, Project Management, Teamwork.

Work Experience

Senior Scientist, Head of RNA Therapeutics 2023-Present
ArtBioScience
- Developed Python-based RNA analysis software, eliminating outsourcing costs and enabling in-house analysis.
- Developed an automation framework, reducing file analysis time by up to 80%.
- Created automation software, enhancing data presentation consistency and uniformity.

Scientist, RNA Therapeutics Department 2021-2023
ArtBioScience
- Developed a Python program to optimize mRNA synthesis by removing inhibitory sequences and restriction sites, increasing yields by 20%-100% and enabling the production of previously unsynthesizable mRNAs while reducing external optimization costs.

Scientific Consultant 2021
Weizmann Institute of Science
- Advised on experimental design, data analysis, and molecular biology techniques, improving research methods.

Postdoctoral researcher 2019-2021
Weizmann Institute of Science
- Led a research team of 3 scientists focused on developing drought-resistant plants via genetic engineering.
- Designed inducible vectors and localized promoters using µRNA to reduce gene expression in target plant tissues.
- Generated modified Arabidopsis thaliana plants that required 30% less water than wild-type.

Projects

HacherU Course
WPF Final Project
- Developed a gallery showcasing multiple WPF applications, leveraging OOP principles, LINQ for efficient data querying, and APIs. Utilized JSON for seamless data exchange, delivering a dynamic, responsive, user-friendly interface.

Full-Stack Final Project
- Designed and built a full-stack social media platform with a React-based interactive front end and a scalable .NET-powered RESTful API. Deployed the API on **Azure** and front end on **Render**, ensuring a robust, efficient architecture.

Education

Courses & Certifications

HackerU - Dot Net Full-Stack Developer 2023-2024
SoloLearn - Python Developer Certification 2023
SoloLearn - Python Core Certification 2022

Academic

Ph.D. in Biotechnology - Weizmann Institute of Science 2014-2019
Thesis: Singlet Oxygen Synthesis Under Osmotic Shock Conditions
M.Sc. in Biotechnology - Bar-Ilan University 2011-2014
Thesis: Genetic Resistance of Cucumbers Against Downy Mildew
Professor Yehuda Halevy Prize for Exceptional Research
B.Sc. in Biotechnology, Psagot Program for Direct MSc Studies - Bar-Ilan University 2010-2011
Research Project: Identification Of Resistance Genes in Tomato Using Genetic Markers

Publications

Osmotic stress in roots drives lipoxygenase-dependent plastid remodeling through singlet oxygen production 2024
Lipoxygenase functions in 1O2 production during root responses to osmotic stress *2021*
Isolate-Dependent Inheritance of Resistance Against Pseudoperonospora cubensis in Cucumber *2020*
Singlet Oxygen Plays an Essential Role in the Root's Response to Osmotic Stress *2018*

Languages

English (Native) Hebrew (Native)